UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
MOUTAOUAKIL, MOUNIR

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 May 2009*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-20* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   The request for continued examination filed on 05-18-2009 has been received

and considered.

Claims 1-20 are pending in this application.

Claims 1-20 remain rejected as discussed bellow.

Continued Examination Under 37 CFR 1.114

2.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05-18-

2009 has been entered.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 1-3, 7-10, 14, and 16 are rejected under 35 U.S.C. 102(b) as being

anticipated by Longoni (US 6,968,192).

Regarding claim 1, Longoni discloses a method for use in a wireless network

comprising a plurality of wireless communication devices (fig.2, MS. The disclosed

invention is directed to wireless networks to provide service to mobile users), an

interrogating state machine comprising a server status store operable to store current

server status information for each of plurality of servers (Fig.2, col.5, lines 14-16 each

RNC includes multiple base stations, servers. Col.6, lines 1-8, RNC 3-2 receives load

status of 13 and col6, lines 28-31, RNC 3-2 receives status of the base stations

associated with it) , the current server status information for each server comprising

current load information for the server (col.6, lines 1-8. RNC 3-2 receives base stations

load information) and capability information for each server (see col.5, lines 48-59. The

RNC stores base stations capabilities. Also see col.4, lines 65-66); and a server

assigner operable to collect server status information from the servers (fig.2, element 21

and col.5, lines 48-59), provide triggers to the servers (see col.5, lines 23-25, RNC3-2

sends requests to RNC 3-2) and to store the servers status information on the server

status store as current server status information and to assign one of the servers to host

one of the wireless communication devices based on the current server status

information (see col.2, lines 57-60, col.6, lines 38-44. the RNC 3-2 assigns the

appropriate cell, server, based on the load information), wherein the triggers provided to

the servers comprise information related to instructions on when to provide the

interrogating state machine with updated server status (see col.5, lines 29-32. the

requests specifies when to transmit the updates).

Regarding claim 2, Longoni discloses that the current server status information

stored in the server status store collectively forming a system status (col.6, lines 19-24),

the server assigner operable to assign one of the servers to host one of the wireless

communication devices based on the current system status (col.6, lines 38-44. the RNC 3-2 assigns the appropriate cell, server, based on the load information).

Regarding claim 3, Longoni discloses that the server assigner further operable to receive a registration request from the one of the wireless communication devices (it is inherent that wireless devices initiate communication with the base station) and to assign one of the servers to host the wireless communication device based on receiving the registration request (col.6, lines 38-44. the RNC 3-2 assigns the appropriate cell, server, based on the load information).

Regarding claims 7, 9, and 14, Longoni discloses that the server assigner comprising: a status collector operable to collect the server status information from the servers and to store the server status information in the server status store as current server status information (Fig.2, col.5, lines 14-16 each RNC includes multiple base stations, servers. Col.6, lines 1-8, RNC 3-2 receives load status of 13 and col6, lines 28-31, RNC 3-2 receives status of the base stations associated with it); and a server selector operable to access the server status store based on receiving a registration request from the one of the wireless communication devices and to select one of the servers based on the server status information in the server status store, the server assigner operable to assign the server selected by the server selector to host the wireless communication device (col.6, lines 38-44. the RNC 3-2 assigns the appropriate cell, server, based on the load information).

Regarding claim 8. Longoni discloses a wireless network (Fig.2), comprising: a plurality of servers (Fig 1, element 4, and Fig.2, base stations within 13 and 23, Wherein

each base station is considered as a server), each server having a varying server status ((see col.5, lines 48-55, each BS has a load status), the server status for each server comprising load information for the server (col.5, lines 48-55) and capability information for each server (see col.5, lines 48-59. The RNC stores base stations capabilities. Also see col.4, lines 65-66), the server statuses of the servers collectively forming a varying system status (Col.6, lines 25-27); and at least one interrogating state machine operable to receive a registration request from one of a plurality of wireless communication devices and (it is inherent that a mobile device has to send a registration request to establish service), based on the registration request, to assign one of the servers to host the wireless communication device based on a current system status (see col.2, lines 57-60), the current system status based on the varying system status (col.6, lines 38-44. the RNC 3-2 assigns the appropriate cell, server, based on the load information), wherein the current system status is dynamically updated by information received by at least one of the plurality servers, wherein the at least one of the plurality of servers provides the information to the at least one interrogating state machine based upon at least one trigger provided to the plurality of servers by the at least one interrogating state machine (see col.5, lines 24-32).

Regarding claim 10. Longoni discloses a wireless network (Fig.2). The server assigner further operable to receive the registration request from the wireless communication device (it is inherent that each wireless device has to register in order to be granted a service).

Regarding claim 16. Longoni discloses a method for assigning one of a plurality

of servers to host a registration for a wireless communication device. The method

comprises receiving a registration request from the wireless communication device (it is

inherent that each wireless device has to register in order to be granted a service); and

assigning one of the servers to host the wireless communication device based on

current server status for each of the servers (Fig.2, col.5, lines 14-16 each RNC

includes multiple base stations, servers. Col.6, lines 1-8, RNC 3-2 receives load status

of 13 and col6, lines 28-31, RNC 3-2 receives status of the base stations associated

with it), the server status for each server comprising load information for the server

(col.6, lines 38-44. the RNC 3-2 assigns the appropriate cell, server, based on the load

information) and capability information for each server (see col.5, lines 48-59. The RNC

stores base stations capabilities. Also see col.4, lines 65-66), wherein the assignment of

one of the plurality of servers is performed using an interrogatory machine (see col.2,

lines 57-60), wherein the current system status is dynamically updated by information

received by at least one of the plurality servers, wherein the at least one of the plurality

of servers provides the information to the at least one interrogating state machine based

upon at least one trigger provided to the plurality of servers by the at least one

interrogating state machine (see col.5, lines 24-32).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negatived by the manner in which the invention was made.

6.   Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Longoni.

Regarding claim 15. Longoni discloses a wireless network wherein interrogating

state machine operable to receive a registration request from one of the wireless

communication devices (Fig(it is inherent that each wireless device has to register in

order to be granted a service), and based on the registration request, to assign one of

the servers to host the wireless communication device based on the current system

status (col.6, lines 38-44. the RNC 3-2 assigns the appropriate cell, server, based on

the load information).

Longoni does not explicitly disclose that the system comprises a plurality of

interrogating state machines. It is generally considered to within the ordinary skill in the

art to adjust, vary, select, or optimize the numerical parameters or values of any system

absent a showing of criticality in a particular recited value. The Burden of showing the

criticality is on applicant. In re Mason, 87 F.2d 370, USPQ 242 (CCPA 1937); Marconi

Wireless Telegraph Co. V. U.S., 320 US 1, 57 USPQ 471 (1943); In re Schneider, 148

F.2d 108, 65 USPQ 129 (CCPA 1945); In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA

1055); In re Saether, 492 F.2d 849, USPQ 36 (CCPA 1974); In re Antonie, 559 F.2d

618, 195 USPQ 6(CCPA 1977); In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA

1980). Since the number of interrogating state machines is not critical to the system, it

would have been obvious to vary the number of interrogating state machines per

system to be any number, including one state machine.

7.   Claims 5, 6, 12, 13, 17-20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Longoni in view of Jayaraman et al (US 2003/02106694). Hereafter

referred to as Jayaraman.

Regarding claims 5, 12. Longoni discloses all the limitation of the parent claim.

Longoni does not disclose that the table comprises a server column operable to identify

the servers and a first server status information column operable to provide first server

status information for the corresponding server identified in the server column.

However, Jayaraman discloses a method of storing the status information of each

server within a table (see figure 9). Thus, it would have been obvious to a person of

ordinary skill in the art at the time the invention was made to implement the system

status table, as taught by Jayaraman, into the wireless network of Longoni for the

purpose of organizing the statuses retrieved from the servers.

Regarding claims 6, 13. Longoni discloses all the limitation of the parent claim.

Longoni does not disclose that the table further comprising a second server status

information column operable to provide second server status information for the

corresponding server identified in the server column, the first server status information

comprises load information and the second server status information comprises

capability information. However, Jayaraman discloses a system where the status

collector comprises multiple tables for different information regarding each server in the

network (figures 9, 10, 11). Thus, it would have been obvious to a person of ordinary

skill in the art at the time the invention was made to implement the information tables,

as taught by Jayaraman, into the wireless network of Longoni for the purpose of organizing the statuses retrieved from the servers.

Regarding claim 17. Longoni discloses a wireless network where the network receives and stores statuses received from the plurality of servers, as discussed above.

Longoni does not disclose requesting a server status from each of the servers and receiving server statuses from at least a portion of the servers. However, Jayaraman discloses a method where the server requests and retrieves servers' statuses (see paragraph 0098). Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the method of retrieving server statuses from the servers in communication with clients, as taught by Jayaraman, into the wireless network of Longoni for the purpose of enhancing the network and increasing network efficiency.

Regarding claim 18. Longoni discloses a wireless network that further comprises accessing the stored server statuses based on receiving the registration request; selecting one of the servers based on the stored server statuses; and assigning one of the servers to host the wireless communication device comprising assigning the selected server to host the wireless communication device, as discussed above.

Regarding claim 19. Longoni discloses all the limitations of the parent claim. Longoni does not explicitly disclose receiving updated server statuses from at least a portion of the servers; and storing the updated server statuses in place of the previously stored server statuses. However, Jayaraman discloses a method of retrieving different types of information from multiple servers and storing them on the regular basis in

information tables (see paragraph 0098, fig 9, 10, 11). Thus, it would have been obvious

to a person of ordinary skill in the art at the time the invention was made to implement

the method of retrieving different types of information from multiple servers and storing

them on the regular basis in information tables, as taught by Jayaraman, into the

wireless network of Longoni for the purpose of enhancing the network and increasing

network efficiency.

Regarding claim 20. Longoni discloses a wireless network that further comprises

requesting updated server statuses from at least a portion of the servers (see col.5,

lines 29-33).

8.   Claims 4 and 11 rejected under 35 U.S.C. 103(a) as being unpatentable over

Longoni in view of the admitted prior art, APA, of Shih.

Regarding claims 4 and 11. Longoni discloses all the limitations of the claimed

invention with the exception that the servers comprise a serving call state control

function (S-CSCF), the S-CSCF operable to enable provision of internet protocol

multimedia domain (IPMMD) services for the wireless communication devices that the

S-CSCF is assigned to host. However, the Background of Shih teaches that every

server comprises a S-CSCF capable of providing IPMMD services for the wireless

devices (paragraphs [0002]-[0004]). Thus, it would have been obvious to a person of

ordinary skill in the art at the time of the invention to employ the S-CSCF to provide

IPPMMD services to the wireless devices, as taught by the APA, into the wireless

network of Longoni for the purpose of converging IP and telecom services.

Response to Arguments

9.   Applicant's arguments filed 04-20-2009 have been fully considered but they are

not persuasive.

10.   Applicant's representative argues that the prior art of record fails to teach (a

server assigner operable to collect server status information from the servers to store

the server status information in the server status store as current server status

information, and to assign one of the servers to host one of the wireless communication

devices based on the current server status information".

11.   Examiner respectfully disagrees. The prior art of record, Longoni, teaches all the

limitations as disclosed above. Longoni teaches an RNC (radio network controller)

connected to multiple base stations (see col.5, lines 15-17). The RNC stores the base

stations statuses and capabilities as it exchanges the stored information with other

RNCs in the network on a periodic basis (see col.5, lines 29-59). the RNC is responsible

for assigning which cell or base station to host a mobile device based on the status of

the base station or cell in order to achieve a successful handover (see at least col.6,

lines 38-44. the decision means is RNC) (see col.2, lines 57-60).

        Claims are given their broadest reasonable construction "in light of the

specification as it would be interpreted by one of ordinary skill in the art." *In re Am.

Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004).

Additionally, Claims are not to be read in a vacuum, and limitations therein are to be

interpreted in light of the specification in giving them their 'broadest reasonable

interpretation'." 710 F.2d at 802, 218 USPQ at 292 (quoting In re Okuzawa, 537 F.2d

545, 548, 190 USPQ 464, 466 (CCPA 1976)). Moreover, claims are interpreted in light

of the specification does not mean that everything in the specification must be read into

the claims." Raytheon Co. v. Roper Corp., 724 F.2d 951, 957, 220 USPQ 592, 597

(Fed. Cir. 1983), cert. denied, 469 U.S. 835 (1984).

Conclusion

Examiner has cited particular columns and line numbers in the references

applied to the claims above for the convenience of the applicant. Although the specified

citations are representative of the teachings of the art and are applied to specific

limitations within the individual claim, other passages and figures may apply as well. It is

respectfully requested from the applicant in preparing responses, to fully consider the

references in entirety as potentially teaching all or part of the claimed invention, as well

as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully

requested to indicate the portion(s) of the specification which dictate(s) the structure

relied on for proper interpretation and also to verify and ascertain the metes and bounds

of the claimed invention.

When responding to this office action, applicants are advised to clearly point out the patentable novelty which they think the claims present in view of the state of the art disclosed by the references cited or the objections made. Applicants must also show how the amendments avoid such references or objections. See 37C.F.R 1.111(c). In addition, applicants are advised to provide the examiner with the line numbers and pages numbers in the application and/or references cited to assist examiner in locating the appropriate paragraphs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOUNIR MOUTAOUAKIL whose telephone number is (571)270-1416. The examiner can normally be reached on Monday-Thursday (1pm-4: 30pm) eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. M./
Examiner, Art Unit 2419
/Ayaz R. Sheikh/
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